IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Nicholas A. John, Peach

Application No.: 09/576,223	Confirmation No.: 2229
Filed: May 22, 2000	Art Unit: 2131
For: ELECTRONIC CONTRACTS	Examiner: E. H. Quinones

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The undersigned submits the brief in connection with the above-identified appeal in triplicate. The fee required for filing the brief should be charged to Deposit No. 22-0185 maintained in the name of Connolly Bove Lodge & Hutz.

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is the International Business Machines Corporation, owner of the rights to the above-identified patent application.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III.   STATUS OF CLAIMS

Claims 1-21 are rejected. No claims have been allowed or withdrawn from consideration.

IV.   STATUS OF AMENDMENTS

No amendments were filed subsequent to the final rejection.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to providing a digital contract that is self-validating and which uses existing or future digital certification algorithms. The contract is stored as a single file.

Figure 3 of the application describes the general form of the invention. As described on page 4, lines 10-19, a header, rules for describing a valid package, and a body that holds either an HTLM or XLM page or other type of data is merged into a single file. The merging step may be implemented by zipping the header, rules and body into a single compressed file, using conventional compression software such as PKZIP, etc. A signature file is then produced from the merged file 2 using a certification algorithm. The signature file is then merged with the merged file to produce a header package 3. The header package at this point still does not contain a sealing signature so it is not yet valid. In accordance with the rules, a final merged package is produced from the merged file and sealing signature. Each merged file also includes a unique number. The process of validating the contract requires unzipping the package, viewing its contents and seeing if the rules have been followed.

Figure 7 illustrates how the packages become unzipped and validated. In accordance with the description on page 9, lines 21 through page 10, line 24, the package is received and unzipped. According to Figure 7, the contract is unzipped, and then the components of the package, other than the sealing signature, are unzipped. Components shown in Figure 6 can then be produced. The rules are read in step 74 to find the keys required to validate both the entire contract and the header package in steps 76 and 78. If the public keys are available locally, they

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are used to validate the contract and header package. Each sealed package is then validated and the body of the text is displayed in Step 82.

VI.   ISSUES

The issues on appeal are as follows.

Are claims 1-2, 4-11, 13-19 and 21 are patentable under 35 U.S.C. § 103 over Hall et al. (U.S. Patent No. 6,138,119) in view of Fischer (U.S. Patent No. 5,214,702)?

Are claims 3 and 20 patent under 35 U.S.C. § 103 over Hall in view of Fischer in view of Ginter (U.S. Patent No. 6,185,683)?

Is claim 12 patentable under 35 U.S.C. § 103 over Hall in view of Ginter further in view of Tedesco et al. (U.S. Patent No. 6,282,523)?

VII.   GROUPING OF THE CLAIMS

As to the rejection of claim 1-2, 4-11, 13-19 and 21, the claims stand and fall as follows:

Claims 1 and 4 stand together.

Claims 5, 6 and 7 stand together.

Claims 8, 9 and 10 stand together.

Claims 11 and 12 stand alone.

Claim 13 stands with claim 8.

Claims 14 and 15 stand alone.

Claims 16 and 17 stand together.

Claim 18, 19, 20 and 21 stand together.

As to the rejections of claims 3 and 20, claims 3 and 20 stand and fall together.

As to the rejection of claim 12, claim 12 stands alone.

VIII.   THE ARGUMENT

The rejection of claims 1-2, 4-11, 13-19 and 21 under 35 U.S.C. § 103 as being unpatentable over Hall et al. (U.S. Patent No. 6,138,119) in view of Fischer (U.S. Patent No. 5,214,702) is in error.

The primary reference to Hall et al. teaches a data structure identifying the contents of a file. The descriptive data structure describes the layout of a write management data structure. The descriptive data structure shown as 200 in Figures 2A and 2B of the reference defines the content of a data container 100A. In the example shown in the reference, the descriptive data structure 200 defines a number of sections of newspaper style contents 102 such as, for example, the headline, the issue date, the lead story, breaking news, etc. The descriptive data structure does not contain or specify any particular content of the illustrated newspaper, instead, it merely identifies a generic format that a newspaper style publication could use. By abstractly defining the data format and other characteristics of newspaper style content, the descriptive data structure 200 allows easy creation and usage and manipulation of newspaper style content (see in particular column 10, lines 45 - column 11, line 10) contained in a data file.

The primary reference to Hall fails to disclose any contract having rules which are contained within a contract. Rejected claim 1, for instance, requires that:

> . . . header package having rules defining sealed packages produced by a sealing party, a body containing at least a portion of the content of the contract; and a validating signature generated from said rules and said body. . . and a sealing signature generated from said header package and said sealed packages according to a second key belonging to said sealing party

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The data structure of the reference does not include any of the foregoing structure. There are no rules contained within the body of the data structure, or mentioned in the specification as being part of the file which accompanies the data structure. As noted in the Office Action, Hall does not teach any validating signature generated from rules according to a first key belonging to a validating party, or any sealing signature generated from the header package.

Hall et al. fails to deal with any of the security issues which are protected by the current invention. While the current invention relies on validating and sealing, where validating depends on rules embedded in the contract, no such structure is found in Hall et al.

Turning now to the secondary reference to Fischer, it also fails to disclose the above claimed features of applicant's claim 1. Fischer does not describe any documents which have rules defining validating and sealing of a contact package. Fischer appears to be addressing a system that allows for the signing of a common certificate by personnel having different security levels. In this way, there are hierarchies of signatures which convey authority, restrictions and limitations, including monetary authority. Hierarchy of certification authority does not disclose the foraging features of applicant's claim 1 described above.

Claim 2, rejected on the same basis, requires the additional limitation of a unique header to identify a type of sealed package, and also validating signature which is generated from the rule's body and header of the package. In reviewing the Fischer reference, as well as Hall, none of these features appear to be described.

Rejected claims 8-12 also contain features not disclosed or shown in Hall et al as well as in Fischer. For instance, in accordance with claim 8 the header package of a digital file includes rules defining sealed packages, a body containing at least a portion of a contract and a validating signature. There are no means for reading the rules of a header package, as set forth in claim 8 and those dependent thereon, 9-10.

Claim 16 also requires that the header package have rules which are used to determine keys to validate the header package, and a sealed package of the digital file which constitutes a contract. It is not seen where either Fischer or Hall have such structure.

Claim 18 also requires rules to describe a data package, and from the rules, creating a data package containing a digital data file, merging the rules and the data package into a merged file. In reviewing the cited references, there is no merged file containing a data package with rules, which is later merged with a validity signature.

The rejection of claims 3 and 20 rejected under 35 U.S.C. § 103 as being unpatentable over Hall in view of Fischer, further in view of Ginter is in error. As noted in the Office Action, Hall does not teach a unique number generated by a sealing party and the sealing signature generated from the header package,

The allegation that Fischer teaches the sealing signature generated from the header package, the sealed packages and the unique number is considered to be in error. The hashing function provided by Fischer, is for encrypting the data file. While there is an aggregation of data which is later hashed to provide an encrypted entity, there isn't the unique number generated by a sealing party.

Ginter describes a system which permits the storage of a secure container in memory having a governed item. The governed item is at least in part encrypted. A secure container rule is also stored in memory, governing an aspect of access to the use of the first secure container's governed item. Hardware is provided which allows access to the secure container using the container rule. The containers can be shipped to different locations protected from tampering. The protected processing environment allows access to the secured container using the secure container rule.

The foregoing structures allows transmission of a data container which is protected from access by someone not having access the secure container rule. The foregoing system fails to disclose, as is required by the rejected claims 3 and 20, any sealed package having a unique

number generated by a sealing party, and a sealing signature generated from the header package. In fact, in reviewing the reference, it is not clear there is any header package which is used to contain any rules of the merged file stored in memory.

As per claim 20, the rules define a sealing signature for the sealed package, which is not disclosed in Ginter.

The rejection of claim 12 under 35 U.S.C. § 103 is also in error. The claim requires that a contact management apparatus include

> . . . means for informing users of data files having expiring contracts in the data base, a means for deleting the contracts from the data base.

It is not seen where in any of the applied references these limitations can be found.

IX.   SUMMARY OF ARGUMENT

The basic requirements of a *prima facie* case of obviousness are set forth in MPEP 2143. This requirement is stated as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It has been shown by the foregoing that the references as combined do not suggest all the claim limitations of the rejected claims.

Even if all the limitations are found in the prior art would not, in itself, result in a *prima facie* case of obviousness. As set forth in the aforesaid MPEP section,

The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (Claims were directed to an apparatus for producing an aerated cementitious composition by drawing air into the cementitious composition by driving the output pump at a capacity greater than the feed rate. The prior art reference taught that the feed means can be run at a variable speed, however the court found that this does not require that the output pump be run at the claimed speed so that air is drawn into the mixing chamber and is entrained in the ingredients during operation. Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

The final rejection fails in both respects to establish a *prima facie* case of obviousness. Accordingly, the honorable Board of Patent Appeals and Interferences is requested to reverse the decision of the Examiner and remand the case for issuance.

Respectfully submitted,

Dated: July 11, 2005

By_____
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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 09/576,223

Listing of Claims:

1.   (Currently amended) A digital file forming a contract comprising:

a header package having rules defining sealed packages produced by a sealing party [;]
₁ a body containing at least a portion of the content of the contract; and a validating signature generated from said rules and said body according to a first key belonging to a validating party; and

a sealing signature generated from said header package and said sealed packages according to a second key belonging to said sealing party.

2.   (Original) A digital file forming a contract according to claim 1 wherein said header package further comprises a unique header identifying a type of said sealed package and wherein said validating signature is generated from said rules, said body and said header.

3.   (Original) A digital file forming a contract according to claim 1 wherein said sealed package comprises a unique number generated by said sealing party and said sealing signature is generated from said header package, any of said sealed packages and said unique number.

4.   (Original) A digital file according to claim 1 wherein said rules define one or more unsealed packages to be included in said sealed package, said body comprises a HTML file and one of the unsealed packages defined in the rules contains data for a field in the HTML file.

5.   (Original) A digital file according to claim 1 wherein said rules comprise a URL corresponding to the location for which each sealed package to be included in the contract can be obtained.

6.   (Original) A digital contract according to claim 5 wherein said URL is a CGI script for commanding a remote server to generate said sealed package.

7.   (Original)A digital contract according to claim 5 wherein said URL identifies the location of said sealed package.

8.   (Original) A contract management apparatus for validating a digital file const contract, said digital file having a header package which includes rules defining sealed packages, a body containing at least a portion of the contract, and a validating signature, comprising:

means for reading said rules and for identifying a validating party and a sealing party which created a sealed file of said contract;

first means for obtaining a first key belonging to said validating party cooperable with said validating signature generated from said rules and body to validate said header package;

second means for obtaining a second key belonging to said sea cooperable with said sealing signature to validate said contract; and

means for iteratively validating any sealed packages contained in said contract using said second key and sealing signature.

9.   (Original) A contract management apparatus as claimed in claim 8 wherein said iterative validating means returns any data stored in said sealed packages.

10.   (Original) The contract management apparatus of claim 9 further comprising means for displaying said body contents and said returned data.

11.   (Original)   A contract management apparatus for generating a digital file constituting a contract comprising:

means for obtaining a header package for said contract;

means for reading rules defining sealed data packages, and for identifying a sealing party and any sealed packages to be included in said contract;

means for obtaining said identified sealed packages;

means for generating a sealing signature from said header package and any of said sealed packages according to a first key belonging to said sealing party; and means for assembling said header package, sealed packages and said sealing signature into said digital file constituting a contract.

12.   (Original) A contract management apparatus comprising:

means for accepting and securely storing data files constituting contracts in an encrypted package database;

means for backing-up said package database;

a navigator tool adapted to allow a user access to said stored data files constituting said contracts;

means, responsive to a request for an encrypted package from said data base, for transmitting said package to an external entity;

means for informing users of data files having expiring contracts in said data base; and

means for deleting contracts from said data base.

13.   (Original)   The contract management apparatus of claim 8, including one of a smartcard, a personal digital assistant, a personal computer, a terminal or an embedded system.

14.   (Original)   A computer product for storing instructions which are executed by a computer to validate a digital file having a header package which includes rules defining sealed packages, a body containing at least a portion of a contract and a validating signature, comprising:

reading said digital file and identifying a validating party and a sealing party which created a sealed package of said contract;

deriving a first key belonging to a validating party;

validating said header package using said first key and said validating signature;

deriving a second key belonging to said sealing

a sealing signature from said header package; and

validating said digital file using said second key and said sealing signature.

15.   (Original)   The computer product according to claim 14, further comprising instructions for deriving said sealing signature from a unique number contained in said header package.

16.   (Original)   A computer product storing instructions for execution on a computer to perform a process to validate a digital file constituting a contract comprising the steps of: a header package in said digital file and reading rules contained in said header package;

determining from said rules keys to validate said header package and a sealed package of said digital file constituting said contract; and

validating each sealed package in said digital file using said keys.

17.   (Original) The computer product storing instructions for execution on a computer according to claim 16, further comprising instructions for performing the additional steps of obtaining said keys from a network server identified by said rules.

18.   (Original) A computer product for storing instructions for a computer to execute the e steps of:

storing rules to describe a data package;

creating from said rules a data package containing a digital data file; merging said rules and said data package into a merged file;

creating a package validity signature from said merged file to prevent unauthorized use of said digital file; and

generating a unique number identifying said digital file;

merging said package validity signature, said merged file and said unique number;

creating a sealing signature from said merged files; and

sealing said merged files with said sealing signature to produce a sealed package.

19.   (Original) A computer product according to claim 18 wherein said rules comprises a plurality of elements which point to a location on said computer containing a required package.
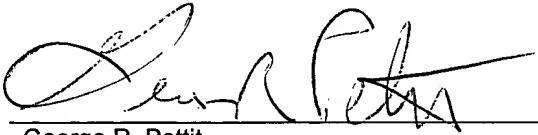
20.   (Original) The computer product according to claim 19 wherein said rules define a sealing signature for said sealed package.

21.   (Currently amended) [the] The computer product according to claim 18 wherein said merged files are compressed as a single file.

Application No.: 09/576,223   Docket No.: 20140-00238-US

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TRANSMITTAL OF APPEAL BRIEF	Docket No. 20140-00238-US

In re Application of: Nicholas A. John, Peach			
Application No. 09/576,223	Filing Date May 22, 2000	Examiner E. H. Quinones	Group Art Unit 2131

Invention: ELECTRONIC CONTRACTS

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed: _____May 9, 2005_____ .

The fee for filing this Appeal Brief is _____$ 500.00_____ .

[x] Large Entity   [ ] Small Entity

[ ] A petition for extension of time is also enclosed.

The fee for the extension of time is _____$ 500.00_____ .

[ ] A check in the amount of _____ is enclosed.

[x] Charge the amount of the fee to Deposit Account No. _____50-0510_____ .
This sheet is submitted in duplicate.

[ ] Payment by credit card. Form PTO-2038 is attached.

[x] The Director is hereby authorized to charge any additional fees that may be required or credit any overpayment to Deposit Account No. _____50-0510_____ .
This sheet is submitted in duplicate.

Dated: _____July 11, 2005_____

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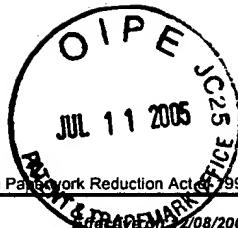
Effective 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

		Complete if Known
	Application Number	09/576,223
	Filing Date	May 22, 2000
	First Named Inventor	Nicholas A. John, Peach
	Examiner Name	E. H. Quinones
	Art Unit	2131

TOTAL AMOUNT OF PAYMENT	($) 500.00	Attorney Docket No.	20140-00238-US

METHOD OF PAYMENT (check all that apply)

☐ Check   ☐ Credit Card   ☐ Money Order   ☐ None   ☐ Other (please identify): _____

☒ Deposit Account   Deposit Account Number: 50-0510   Deposit Account Name: IBM Corporation (Yorktown)

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below   ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17   ☒ Credit any overpayments

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	Small Entity Fee ($)	SEARCH FEES Fee ($)	Small Entity Fee ($)	EXAMINATION FEES Fee ($)	Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - ____ = _____ x ____ = _____			

Multiple Dependent Claims

Fee ($)	Fee Paid ($)
_____	_____

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - ____ = _____ x ____ =			

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 = _____	/50 _____	(round up to a whole number) x	_____ =	_____
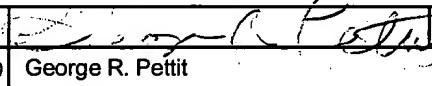
4. OTHER FEE(S)

Non-English Specification,

Other (e.g., late filing surcharge):

	Fees Paid ($)
1402 Filing a brief in support of an appeal	500.00

SUBMITTED BY			
Signature	[signature]	Registration No. (Attorney/Agent) 27,369	Telephone (202) 331-7111
Name (Print/Type)	George R. Pettit	Date	July 11, 2005